

REMARKS

A new attorney has been appointed as demonstrated by the enclosed power of attorney. Please update the file of this application so that further correspondence is made to Customer Number 28765.

Claims 1-26, as amended, and new claims 52-73 appear in this application for the Examiner's review and consideration.

The specification was amended to correct an error of a typographical nature and to update the status of a related application. In support of the latter change, a copy of the first page of the issued patent is enclosed.

The indication of allowable subject matter in claims 11, 13, 16-21, and 26 is noted with appreciation. In response, claim 20 has been written in independent form so that claims 20-21 and are now in condition for allowance.

Claims 1-3, 10, 12, 14, 15 and 22 were rejected under 35 U.S.C. 102(e) as being anticipated by US patent 6,009,065 to Glushko et al. ("Glushko"), while claims 4-9 were rejected as being unpatentable over Glushko in view of Official Notice that the various filters or polarizers recited in those claims are well known in the art.

Glushko discloses an optical pickup that provides 3-D reading of the binary optical information from multilayer fluorescent discs by means of fluorescent sites excitation. The 2-D information at the separate layer is recorded by chemical transformation of the photosensitive material from one stable molecular form A (non-fluorescent) to another stable molecular form B (fluorescent) via UV light illumination. The device of Glushko reads the stored memory from the read only 3-D optical memory and includes: (i) only one reading laser beam focused to the desired layer, which induces the fluorescence in the whole volume confined within conical surface of focused beam, (ii) an active medium which possesses fluorescing properties and is organized in a form of multilayer optical disc, (iii) detection of fluorescence at the wavelength different from the excitation wavelength, and (iv) spectral, spatial and electronic filtration of the detected signal in order to extract signal from the noise fluorescence coming from all out-of-focus layers. Utilization of a dichroic mirror and/or filter in the optical pickup prevents the photo diode from the reading laser radiation.

As to independent claim 1, this claim has been amended to recite that the disc includes a plurality of micro-spots comprising pits, grooves, or both, each having widths of about 0.6 μm for increased transmission of data-carrying radiation. The present specification explains that these increased size pits or grooves provide an increase of at least 30% in signal increase (i.e., the transmission of information-carrying information) without significantly

affecting the signal to noise ratio. As Glushko is silent on this feature, it cannot anticipate or render obvious claim 1. Accordingly, this rejection should be withdrawn.

As to independent claim 10, the office action states that Glushko discloses a light controlling element at col. 10, line 50 through col. 11, line 25. Those portions of the patent discuss tracking and focusing but they do not disclose increasing the amount of reflected information-carrying radiation. Furthermore, claim 10 has been amended to recite that the light-controlling element reflects at least part of the information-carrying radiation toward towards the detecting means, namely, that part that is moving away from the detecting means. This enables an increased amount of the information-carrying radiation to reach the detector. Often, this is an increase of twice as much radiation, with improved signal reading and information processing obtained as a result. Accordingly, the rejection of claim 10 should be withdrawn.

Regarding claims 4-9, applicants respectfully submit that the fact that certain components were or are known is of no consequence to the present claims, since those components are not known for use in a device of the type that is presently claimed. Should the Examiner believe to the contrary, then it should be relatively easy to locate prior art references that discuss the use of these components in a system that is the same as or similar to that of the present invention. If such references are not found, then the claims should be allowed as they define a device comprising a collection of components that have not previously been combined in the art. Again, applicants are not claiming the components *per se*, but instead the inclusion of such components for a particular purpose is a device that is novel over the cited art. Thus, the obviousness rejection of claims 4-9 should be withdrawn.

Accordingly, all claims are patentable over Glushko.

Claims 1-3, 10 and 22-25 were rejected under 35 U.S.C. 102(e) as being anticipated by US patent 4,927,681 to Chikuma, while claims 4-9 were rejected as being unpatentable over Chikuma in view of Official Notice that the various filters or polarizers recited in those claims are well known in the art.

Chikuma discloses a recording medium having islands of light-emitting material in regions formed between a transparent substrate, and a reflective layer disposed on one principal surface thereof. The islands of light-emitting material are sensitive to illuminating light incident thereupon, and in response thereto, emit light having a different wavelength than the illuminating light. Reproducing apparatus separates an overall reflected light from the recording medium into first reflected light corresponding to a reflected

scanning light, and second reflected light corresponding to emitted light from the light emitting material.

It is respectfully submitted that independent claims 1 and 10 are patentable over Chikuma for the same reasons that they are patentable over Glushko. In particular, as to independent claim 1, Chikuma does not disclose that the disc includes a plurality of micro-spots comprising pits, grooves, or both, each having widths of about 0.6 μm for increased transmission of data-carrying radiation. Like Glushko, Chikuma is silent on this feature, so that it cannot anticipate or render obvious claim 1. Furthermore, Chikuma does not teach or disclose a fluorescent multilayer disc as recited in present claim 1. Accordingly, this rejection should be withdrawn.

As to independent claim 10, the office action states that Chikuma's tracking actuator for tracking error control of the objective lens is equivalent to the claimed light-controlling element. Reconsideration of this statement is respectfully requested. Chikuma does not disclose increasing the amount of reflected information-carrying radiation to the detecting means. Furthermore, as noted above, claim 10 has been amended to recite that the light-controlling element reflects at least part of the information-carrying radiation toward towards the detecting means, namely, that part that is moving away from the detecting means. This enables an increased amount of the information-carrying radiation to reach the detector. Often, this is an increase of twice as much radiation, with improved signal reading and information processing obtained as a result. Accordingly, the rejection of claim 10 should be withdrawn.

Independent claim 23, which was not rejected over Glushko, is patentably distinct over Chikuma because Chikuma fails to disclose a first detector for detecting the information-carrying radiation when the information-carrying radiation has a wavelength equal to a wavelength of the reading radiation and a second detector for detecting the information-carrying radiation when the information-carrying radiation has a wavelength different from the wavelength of the reading radiation. Although Chikuma discloses two photodetectors (27 and 29 in Figure 2), both detectors do not receive information-carrying radiation. Instead, one detector receives a first reflected light that corresponds to a reflected scanning light that was originally emitted from the light source 21, while the other detector receives a second reflected light that corresponds to a reflected or emitted light from the light-emitting material of the disc. Thus, only one detector detects information-carrying radiation, while the other does not. As Chikuma does not split the light beam into multiple components, it does not produce information-carrying radiation of different wavelengths, so

that there is no need to detect information-carrying radiation of two different wavelengths. Also, as noted above, Chikuma does not utilize a multilayer fluorescent information-carrying optical disc as claimed in claims 58 and 59.

Regarding claims 4-9, applicants repeat the comments made above in response to the rejection of these claims over the Glushko patent. If no prior art references are identified that discuss the use of these components in a system that is the same as or similar to that of the present invention, the inclusion of such components for a particular purpose in the present device is novel over the cited art. Thus, the obviousness rejection should be withdrawn.

Accordingly, all claims are patentable over the Chikuma patent.

New claims 52-73 are dependent claims that are directed to preferred embodiments of the invention. Each feature of these claims is disclosed in the specification, so that there is no issue of new matter in entering these claims. As these new claims each depend from an independent claim that is believed to be patentable over the cited art as noted above, each of these claims should also be allowable for at least that reason.

In view of the above, the entire application is believed to be in condition for allowance, early notice of which would be appreciated. Should any issues remain, a personal or telephonic interview is respectfully requested to discuss the same in order to expedite the allowance of all the claims in this application.

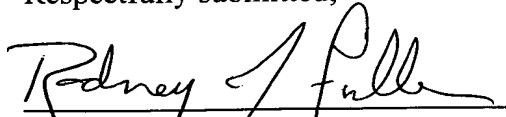
A petition for an extension of time is enclosed so that the filing of this response prior to March 3, 2005 is timely.

Based on the new Power of Attorney submitted herewith, all further communications should be directed to the undersigned at Customer Number 28765.

Date: _____

2/28/05

Respectfully submitted,


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